

CLAIMS

What is claimed is:

1. A subscriber unit including an apparatus for suppressing selective communications during communication rate modification, the subscriber unit coupled between first and said second communicating nodes, the subscriber unit including:

means for establishing a communication channel between said first and said second nodes at a first data rate;

means for detecting a transmission from said first node on said channel;

means for determining whether said transmission requires a change in data rates to a second data rate;

switch means, responsive to said determining means, for switching said communication channel to said second data rate; and

blocking means, responsive to said determining means, for blocking transmissions from said second node until said second data rate has been established.

2. The subscriber unit of claim 1 wherein said detecting means detects tones at a plurality of selective frequencies and said tones initiate a change to said second data rate.

3. The subscriber unit of claim 2 wherein said switch means switches said first data rate to said second data rate, which is higher than said first data rate.

4. The subscriber unit of claim 3 wherein said first data rate is 32 kb/s and said second data rate is 64 kb/s.

5. The subscriber unit of claim 4 wherein said first data rate employs pulse code modulation and said second data rate employs adaptive pulse code modulation.

6. The subscriber unit of claim 1 wherein said switch means is responsive to said determining means to switch said established channel to one of a plurality of alternative channels, depending upon a data rate and modulation type required by said transmission.

7. A subscriber unit for facilitating wireless communications between an originating node and a terminating node, the subscriber unit located such that at least a portion of the communication between said originating node and said terminating node passes through the subscriber unit, the subscriber unit selectively adjusting transmission rates without the loss of data during the transmission rate adjustment, the subscriber unit including:

means for establishing a communication channel between said originating node and said terminating node, said channel comprising a first communication path from said originating node to said terminating node and a second communication path from said terminating node to said originating node;

means for monitoring said first communication path for a signal, said signal indicating the request for a transmission rate adjustment;

adjustment means, responsive to said monitoring means, for adjusting the transmission rate of said communication channel; and

suppression means, responsive to said detection means, for suppressing communications on said second communication path until the desired transmission rate is established.

8. The subscriber unit of claim 7 wherein said monitoring means detects signals having selective frequencies indicating a request for an increased transmission rate.

9. The subscriber unit of claim 7 wherein said adjustment means switches said communication channel to a second communication channel having a higher transmission rate.

10. The subscriber unit of claim 9 wherein said communication channel has a transmission rate of 32 kb/s and said second communication channel has a transmission rate of 64 kb/s.

11. The subscriber unit of claim 9 wherein said communication channel uses pulse code modulation and said second communication channel uses adaptive pulse code modulation.

12. The subscriber unit of claim 7 wherein said signal indicates a transmission rate and a modulation type required and said adjustment means is responsive to said monitoring means to switch said channel to one of a plurality of alternative channels, depending upon a transmission rate and a modulation type required by said signal.

13. A wireless subscriber unit, interposed between a first communicating node and a second communicating node, the subscriber unit for suppressing selective communications during channel modification, the subscriber unit comprising:

means for establishing a first duplex communication channel between said first node and said second node comprising a transmit (Tx) portion and a receive (Rx) portion; said channel having a first communication rate and modulation type;

means for detecting a transmission from said first node on said Tx portion;

means for determining whether said transmission requires a change to a second duplex communication channel having a second data communication rate and modulation type;

switch means, responsive to said determining means, for switching said first communication channel to said second communication channel; and

blocking means, responsive to said determining means, for blocking transmissions on said Rx portion until said second communication channel is established.

14. The system of claim 13 wherein said detecting means detects selective transmitted frequencies on said Tx portion which indicate a requirement for a change to said second communication channel.

15. The subscriber unit of claim 13 wherein said second communication channel has a faster communication rate than said first communication rate.

16. The subscriber unit of claim 13 wherein said first communication rate is 32 kb/s and said second communication rate is 64 kb/s.

17. The subscriber unit of claim 13 wherein said first communication channel uses pulse code modulation and said second communication channel uses adaptive pulse code modulation.

18. The subscriber unit of claim 13 wherein said switch means is responsive to said determining means to switch said established channel to one of a plurality of alternative channels, depending upon a communication rate and a modulation type required by said transmission.

19. A wireless subscriber unit for facilitating communications between a first communicating entity and a second communicating entity, the subscriber unit selectively suppressing communications during bearer rate modification, the subscriber unit comprising:

means for establishing a communication channel between said first entity and said second entity;

means for detecting a transmission from said first entity over said channel;

determining means responsive to said detecting means, determining if a new communication channel is required;

switch means, responsive to said determining means, for switching over said communication channel to said new communication channel; and

blocking means, responsive to said determining means, for blocking transmissions from said second entity to said first entity until said switchover is completed.

20. A subscriber unit capable of modifying its communication rate, the subscriber unit handling at least a portion of a communication between an originating node and a terminating node, the subscriber unit comprising:

a receiver for receiving a first communication from said originating node at a first communication rate;

a detector for detecting a request for a modification of said communication rate;

rate modification means for modifying said first communication rate to said requested communication rate;

a transmitter for transmitting said first communication at said first communication rate to said terminating node; whereby said receiver receives an answering tone from said terminating node;

said rate modification means includes a suppressor for suppressing said answering tone until said modification is completed; and said transmitter transmits said answering tone to said originating node.